

Heart Disease and Stroke

Cardiovascular disease (CVD) is any disease of the circulatory system. Most of the deaths from CVD relate to coronary heart disease (CHD) or heart attack, stroke (cerebrovascular disease) and other diseases of the circulatory system including heart failure and diseases of the artery.⁹

CVD remains the leading cause of death in the United States despite improvements in prevention, detection, and treatment. New York ranks 16th in the United States in age-adjusted deaths due to CVD.

CVD is no longer thought of most as a disease that affects men as they age; more than half the deaths occur among women. While the premature mortality rate is higher in men, more women than men have died from heart disease in every year since 1984 and this trend is increasing.

Cardiovascular diseases are the leading causes of death in New York State, killing more than 70,000 residents each year (43% of all deaths). For every person who dies from a heart attack or angina, 18 people live with these conditions. For every person who dies from a stroke, seven people cope with the consequences of a non-fatal event. Many of these survivors are disabled and cannot lead productive lives.

They also are at high risk for additional events. CVD remains the leading cause of disability among working adults. Stroke alone accounts for the disability of more than one million Americans.¹⁰

The health burden of CVD is matched by its economic burden. In 2002, the estimated direct and indirect (medical care + lost productivity) cost of cardiovascular disease in New York was almost \$16 billion. This is approximately \$860 for each person in New York.

More than 20,000 coronary artery bypass surgeries are performed each year in the state, with a mean cost of approximately \$32,000. A conservative estimate of the cost for treating one person with heart disease over 20 years is \$121,200. These medical expenses include diagnostic tests, surgeries, hospital and doctor visits, physical therapy and drugs.¹¹

Data Analysis

CVD Mortality

• Avg. age-adj. rate per 100,000 pop, 2000–2002.	
Tompkins.....	279
Cayuga.....	297
Cortland.....	345
Tioga.....	266
CNY.....	316
NYS.....	341

The cardiovascular disease age adjusted death rate for the County is 278.5 per 100,000 population. The rate is lower than that of New York State and neighboring counties except for Tioga County which has an age adjusted CVD death rate of 265.7 per 100,000. (*See Figure 76, page 101.*)

Note that the crude rates for CVD death Tompkins County are considerably lower than are the age adjusted rates, a reflection of the young population. (The median age in Tompkins County is 28.6 years.)

⁹ from “The Burden of Cardiovascular Disease in New York: Mortality, Prevalence, Risk Factors and Selected Populations,” April 20, 2004.

¹⁰ http://www.health.state.ny.us/nysdoh/heart/heart_disease.htm

¹¹ NYSDOH and CDC.

Diseases of the Heart Mortality

• Avg. age-adj. rate per 100,000 pop, 2000–2002.	
Tompkins	207
Cayuga	230
Cortland	267
Tioga	198
CNY	240
NYS	284
HP2010	166

Cerebrovascular Disease (stroke) Mortality

• Avg. age-adj. rate per 100,000 pop, 2000–2002.	
Tompkins	50.0
Cayuga	42.8
Cortland	56.9
Tioga	47.3
CNY	54.3
NYS	38.4
HP2010	48.0

Risk factors

Hypertension

Heart disease and stroke are the two commonly reviewed components of CVD. The rate of deaths from diseases of the heart in Tompkins County is the lowest in the Central New York (CNY) region. Tioga County, which is outside of the CNY region, has the lowest age adjusted rate of heart disease deaths in the state. (*See Table 10, page 101.*)

While the crude death rate for Tompkins County is not a good way to compare against other counties and regions due to the Tompkins' low median age, it is a valid way to view trends in county death rates across years. For the 10 year period from 1993 to 2002 the crude rate for deaths due to heart disease in Tompkins County declined 36.3 points, or close to 19 percent. Upstate New York rates dropped 41.5 points, or just over 12 percent. (*See Figure 77, Page 101.*)

There is still room for improvement even with Tompkins' low rate. The Healthy People (HP) 2010 objective is to reduce coronary heart disease deaths to 166 per 100,000 population. Diseases of the heart age-adjusted mortality rates in the U.S. have declined 59 percent, from 587 per 100,000 in 1950 to 241 per 100,000 in 2002. (*See Figure 78, page 101.*)

The HP 2010 objective is to reduce stroke deaths to 48 per 100,000 population. Tompkins County's age-adjusted death rate for cerebrovascular disease is 50. This is 30 percent higher than New York State as a whole and about mid-range among neighboring Central New York counties. (*see Figure 79, page 101.*)

Epidemiological and statistical studies have identified a number of factors that can impact the risk of heart disease and stroke. Two discussed here are blood pressure and blood cholesterol levels.

The HP 2010 objective is to increase to 95 percent the proportion of adults who have had their blood pressure measured in the preceding two years and can state whether their blood pressure was normal or high.

In Tompkins and Cortland Counties, 17.6 percent of adults report having been told by a medical professional that they have high blood pressure, according to the most recent results from the Behavioral Risk Factor Surveillance System (BRFSS.) This is the only data currently available on blood pressure measurement for Tompkins County and is open to broad interpretation because it is self-reported and it represents both Tompkins and Cortland Counties. Compared to neighboring counties this rate is quite low (*see Figure 80, page 103.*)

In New York State, between 1995–2003, the percent of adults diagnosed with high blood pressure increased. (*see Figure 81, page 104.*) This increase could be a reflection of the introduction of the new classification of elevated blood pressure—“prehypertension”—defined as systolic pressure between 120–139 mm Hg and diastolic pressure 80–90 mm Hg.

The HP 2010 objective is to reduce to 16 percent the proportion of adults with high blood pressure.

Blood cholesterol

- Report having checked in last 5 years. Expanded BRFSS, 2003
- Tompkins–
- Cortland.....67%
- CNY Avg.73%
- NYS.....77%
- HP201080%

In 2003, 67 percent of Tompkins and Cortland County residents reported having had their blood cholesterol levels checked in the past 5 years (*see Figure 82, page 104.*) This is the lowest number of all available CNY counties, though statistical differences are not significant. The number for all New York residents is 77 percent, 14 percent higher than Tompkins-Cortland. The HP 2010 objective is to increase to 80 percent the number of adults who have had their blood cholesterol levels checked in the past 5 years.

Community Resources

NYSDOH

The New York State Department of Health is working to reduce cardiovascular risk through its comprehensive plan that promotes healthier behaviors and reduce known disease risks. The plan promotes interventions in four sectors: communities, schools, worksites and health care settings. Its aim is to decrease tobacco use, increase daily physical activity, increase consumption of fruits and vegetables and low-fat milk and reduce high blood pressure.

Health Promotion Program, TCHD

The Health Promotion Program (HPP) at the Tompkins County Health Department (TCHD) completed a five-year grant in March 2004 addressing worksite wellness. The goal was to encourage a worksite environment that provides support for healthy eating and regular physical activity. The program continues to provide technical assistance upon request and maintains a web site: www.tompkins-co.org/wellness for on-line support and information. (See other sections in this document for information on physical activity, tobacco, nutrition.)

TCHD responds to community requests for blood pressure screenings, information and presentations on nutrition, physical activity campaigns, women and heart disease, and tobacco control.

Cayuga Medical Center

Cayuga Medical Center (CMC) in Ithaca offers a full-range of non-invasive cardiac diagnosis treatments using the most advanced ultrasound and imaging technology currently available. Cardiac catheterization began in 2000. Residents travel to out-of-town hospitals specializing in heart surgery for those procedures. There are five cardiologists practicing

in Tompkins County.

Opportunities for Action

Healthy lifestyle

County residents should maintain awareness of the causes of cardiovascular disease and expand opportunities for heart healthy choices. These include incorporating physical activity and healthy eating into daily routines and avoiding tobacco. Monitoring blood pressure and cholesterol levels and taking action to lower elevated levels will reduce the future risk of heart disease in many adults. Physicians and other health professionals have a unique and important role to play in the effort against heart disease and stroke. The evidence is clear that people advised by their doctors to be active, eat more healthfully or avoid tobacco are more likely to do so.

Figures and Tables

Figure 76 — Cardiovascular disease mortality, age-adjusted rates, regional comparison

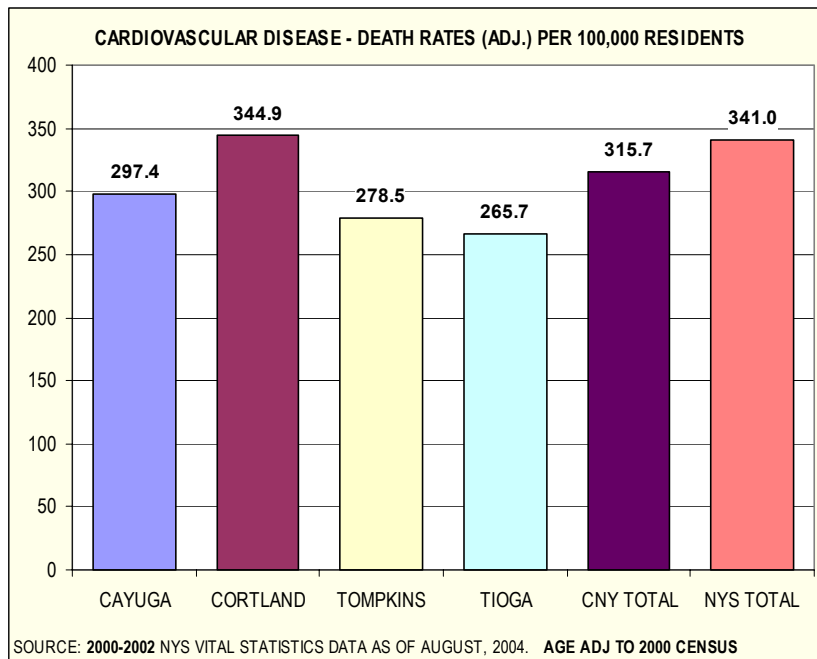


Table 10 — Diseases of the Heart mortality, crude and age-adjusted rates, regional comparison

DISEASES OF THE HEART - DEATHS AND DEATH RATES PER 100,000 RESIDENTS

SOURCE: 2000-2002 VITAL STATISTICS DATA AS OF AUGUST, 2004

ADJUSTED RATES ARE AGE ADJUSTED TO THE 2000 U.S. POPULATION

REG-3 CENTRAL NEW YORK

DISEASES OF THE HEART DEATHS					
COUNTY	TOTAL 2000-02	POP 2001	CRUDE RATE	AGE ADJ. RATE	CNY Rank (Adj Rate)
CAYUGA	671	81,412	274.7	230.4	4
CORTLAND	396	48,639	271.4	266.9	8
HERKIMER	752	64,170	390.6	276.8	11
JEFFERSON	748	110,212	226.2	243.4	6
LEWIS	188	26,941	232.6	213.4	2
MADISON	494	69,795	235.9	235.2	5
ONEIDA	2,451	234,635	348.2	255.5	7
ONONDAGA	3,282	459,288	238.2	214.6	3
OSWEGO	922	122,639	250.6	276.3	10
ST. LAWRENCE	937	111,385	280.4	272.0	9
TOMPKINS	495	97,998	168.4	206.5	1
CNY TOTAL	11,336	1,427,114	264.8	240.1	—
TIOGA (REG-4)	320	51,535	207.0	198.2	

Figure 77 — Diseases of the Heart mortality, crude rates, 10-year trend

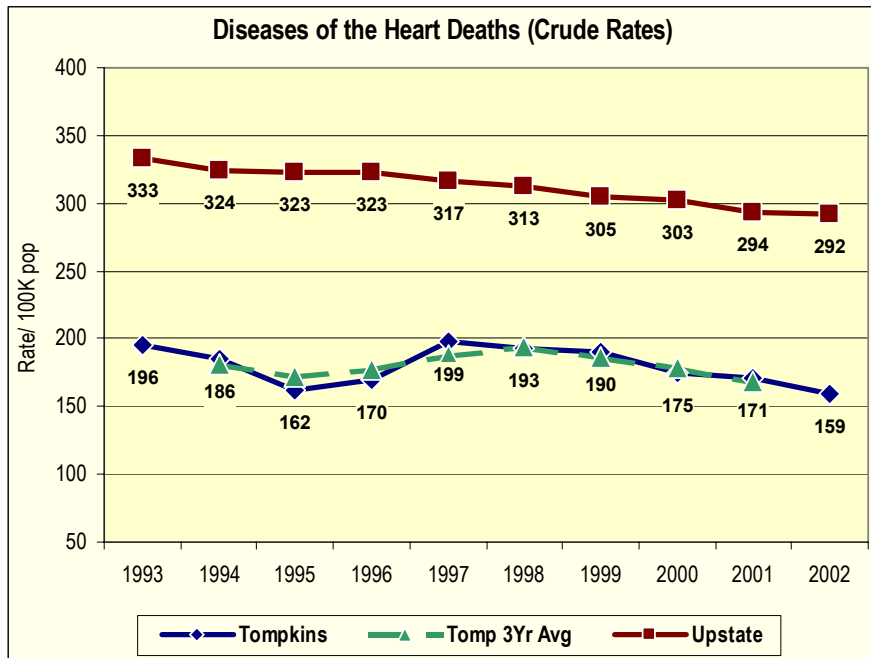


Figure 78 — Diseases of the heart mortality, age-adjusted rate, United States, 50-year trend

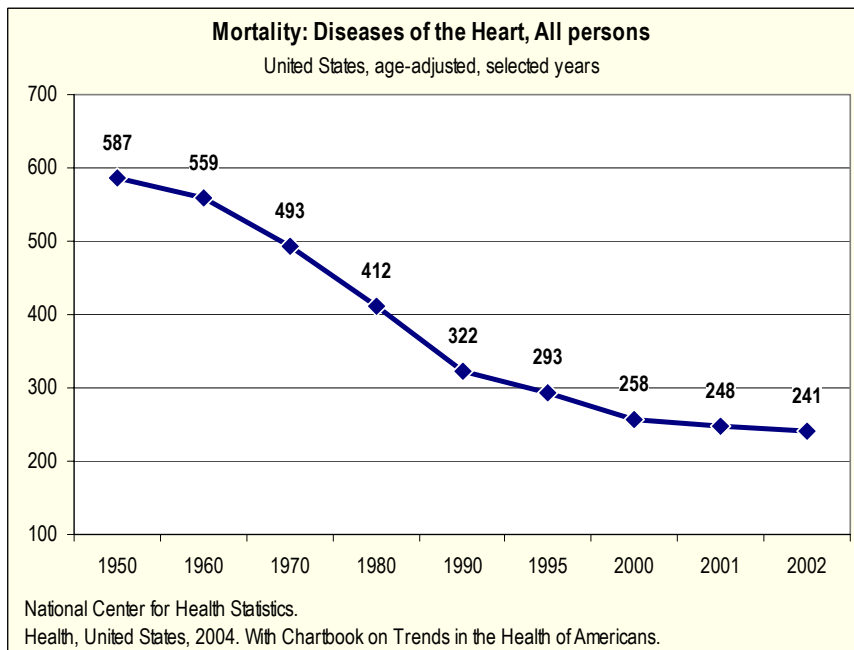


Figure 79 — Cerebrovascular disease mortality, age-adjusted rates, regional comparison

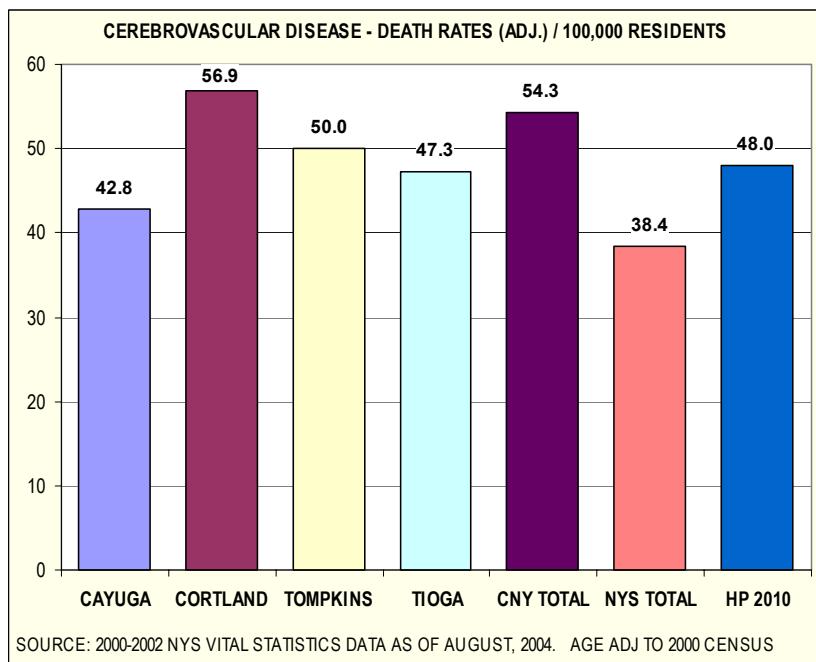


Figure 80 — Ever diagnosed with high blood pressure, regional comparison

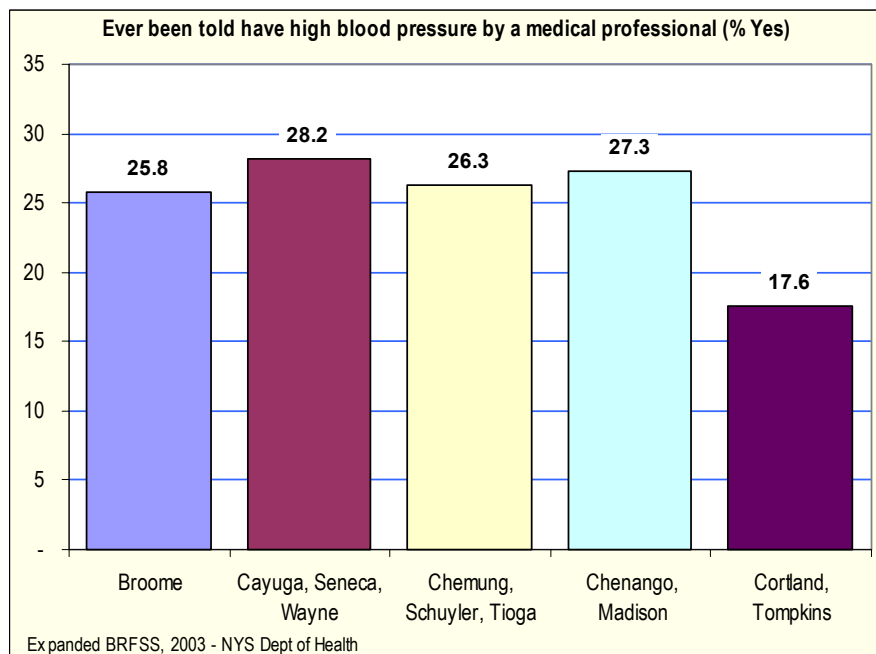


Figure 81 — Diagnosed with high blood pressure, NYS 8-year trend

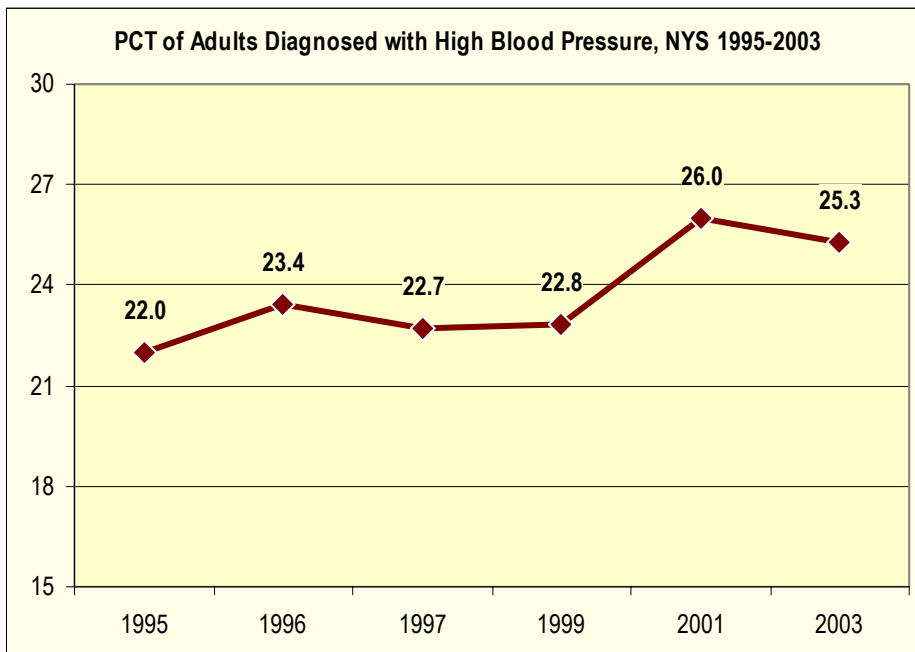


Figure 82 — Had blood pressure checked, regional comparison

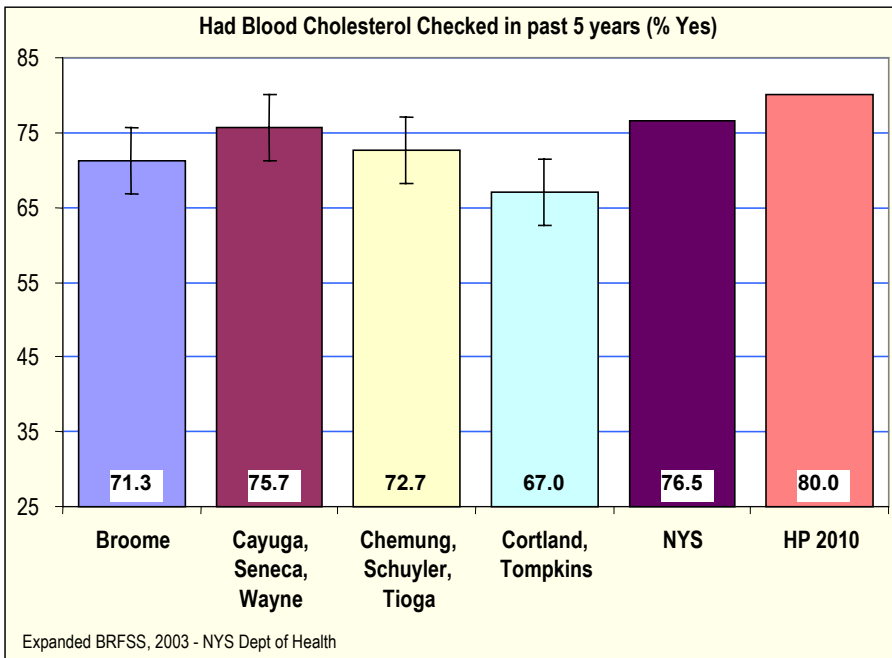


Figure 83 — Had blood cholesterol checked, NYS 14-year trend

